1997

SIERRA CLUB, CHEMICAL WEAPONS WORKING GROUP and VIETNAM VETERANS OF AMERICA FOUNDATION v. Utah Solid and Hazardous Waste Control Board and United States Army and EG&G Defense Materials Inc.: Brief of Intervenors

Utah Court of Appeals

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IN THE UTAH COURT OF APPEALS

SIERRA CLUB, CHEMICAL WEAPONS WORKING GROUP and VIETNAM VETERANS OF AMERICA FOUNDATION,

Petitioners-Appellants,

v.

UTAH SOLID and HAZARDOUS WASTE CONTROL BOARD

Respondent-Agency-Appellee,

and

UNITED STATES ARMY and EG&G DEFENSE MATERIALS, INC.,

Intervenors-Appellees.

BRIEF OF INTERVENORS UNITED STATES DEPARTMENT OF THE ARMY and EG&G DEFENSE MATERIALS, INC.

Case No. 97-0313-CA

Argument Priority No. 14

On Petition for Review of a Decision of the Utah Solid and Hazardous Waste Control Board

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PARTIES TO THIS APPEAL

The parties to the proceeding before the Utah Solid and Hazardous Waste Control Board, which is the subject of this appeal were:

Petitioners

Sierra Club

Chemical Weapons Working Group, Inc.

Vietnam Veterans of America Foundation

Respondents

Executive Secretary, Utah Solid and Hazardous Waste Control Board ("Executive Secretary")

United States Department of the Army ("Army")

EG&G Defense Materials, Inc. ("EG&G")

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STATEMENT OF JURISDICTION

The Court has jurisdiction to hear this Petition for Review pursuant to Utah Code Ann. §§ 63-46b-16(1) and 78-21-3(2)(a). The Utah Solid and Hazardous Waste Control Board (the "Board"), acting in its capacity as a state agency, issued an Order on July 22, 1997 which is the subject of this Petition for Review. That decision denied the First and Second Requests for Agency Action filed by Petitioners/Appellants the Sierra Club, Chemical Weapons Working Group, Inc. and Vietnam Veterans of America Foundation (collectively the "Sierra Club") to challenge the permitting decisions of the Executive Secretary of the Utah Solid and Hazardous Waste Control Board, Utah Department of Environmental Quality (the "Executive Secretary") pursuant to authority under the Utah Solid and Hazardous Waste Act. The Board's decision constitutes a final order resulting from formal adjudicative proceedings held on March 18-20, 1997, and April 17, 1997. The Sierra Club filed a timely petition for review.

ISSUES ADDRESSED

1. Whether the Board's decision to uphold the Executive Secretary's approval of commencement of trial burns with chemical agent at the Tooele Chemical Agent Disposal Facility ("TOCDF") was supported by substantial evidence where the health risk assessment and expert testimony showed no risks above levels of concern and TOCDF engineering controls and operational procedures have worked as intended.

2. Whether the Board's decision not to revoke the Army's permit to operate TOCDF was supported by substantial evidence where no operational events have resulted in harm to persons or the environment and appropriate corrective action has been taken.

3. Whether the Board's decision not to revoke the decision of the Executive Secretary to approve EG&G's application to be added to the TOCDF permit was supported by substantial evidence, within his discretion and otherwise consistent with applicable legal requirements.[1/]

4. Whether the Board afforded the Sierra Club procedural due process when it provided a formal three-day hearing containing all elements essential to a trial and, based upon presentations by the parties several months before the hearing, placed time limits on all parties' oral presentation of evidence.

STANDARD OF APPELLATE REVIEW

As to Issues 1, 2 and 3 above, this Court should uphold the Board's decision unless, on the basis of the record before the Board, the Sierra Club has been substantially prejudiced by agency action not supported by "substantial evidence" when viewed in light of the whole record. Utah Code § 63-46b-16(4)(g). "Substantial evidence" is such relevant evidence as a reasonable mind might accept as adequate to support a conclusion. Grace

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[1/] Argument in response to this issue, which was raised by the Sierra Club's First Request for Agency Action filed only against EG&G, is presented in Section III below solely by EG&G.

Drilling Co. v. Board of Review, 776 P.2d 63, 68 (Utah Ct. App. 1989). Although more than a "scintilla" of evidence, substantial evidence is something less than the weight of the evidence. Id. In undertaking review, this Court does not substitute its judgment for that of the Board. Id. This Court should not disturb the inferences drawn by the Board to support its conclusions or the Board's application of its factual findings to the law unless the Board's determinations exceed the bounds of reasonableness and rationality. Id.; Nelson v. Dep't of Emp. Sec., 801 P.2d 158, 161 (Utah Ct. App. 1990).[2/] In order to prevail, the Sierra Club must marshal all of the evidence in the record supporting the Board's findings and show that, despite the supporting facts, and in light of the conflicting or contradictory evidence, the findings are not supported by substantial evidence. Grace Drilling, 776 P.2d. at 68.

[2/] While substantial evidence appears to be the general standard of review applicable under Utah Code Ann. § 63-46b-16(4)(g), the Utah Supreme Court has recently articulated a more flexible approach in cases involving an agency's application of the law to the facts: "A trial court's or agency's application of the law to the facts may, depending on the issue, be reviewed by an appellate court 'with varying degrees of strictness, falling anywhere between a review for "correctness" and a broad "abuse of discretion" standard.'" Drake v. Industrial Comm'n, 317 Utah Adv. Rep. 3, 6 (May 13, 1997) (quoting Langeland v. Monarch Motors, Inc., __ P.2d __ (Utah 1996) (307 Utah Adv. Rep. 3, December 31, 1996). In that regard, appellate courts may take "into account factors such as policy concerns and an agency's expertise rather than using undefinable labels such as 'reasonableness.'" Id. at 7 n.6.

As to Issue 4 above, this Court should affirm the Board's decision unless the Sierra Club has been substantially prejudiced by agency action that is unconstitutional on its face or as applied. Utah Code § 63-46b-16(4)(a). This issue is to be reviewed under a "correction-of-error" standard without deference given to the Board's decision. Lopez v. Career Serv. Review Bd., 834 P.2d 568, 571 (Utah Ct. App. 1992) (holding that issue of whether administrative agency afforded petitioner due process in hearing was question of law, giving no deference to agency), cert. denied, 843 P.2d 1042 (Utah 1992); see also Union Pac. R.R. Co. v. State Tax Comm'n, 842 P.2d 876, 881 (Utah 1992); Questar Pipeline Co. v. Utah State Tax Comm'n, 817 P.2d 316, 317 (Utah 1991).

STATEMENT OF THE CASE

A. Nature of the Case

This case involves the Army's destruction of chemical warfare agents at an incineration facility near Tooele, Utah. The Army is undertaking this program under a mandate from Congress to "carry out the destruction of the United States' stockpile of lethal chemical agents and munitions that exist[ed] on November 8, 1985." 50 U.S.C. § 1521(a).

In 1989, the Executive Secretary approved, pursuant to the Utah Solid and Hazardous Waste Act, the Army's hazardous waste plan for construction and operation of a hazardous waste treatment facility to destroy the stockpile of chemical weapons

located at the Tooele Army Depot. This hazardous waste plan is known as the TOCDF permit.

Following completion of construction and testing of the facility with non-agent chemicals, the Army applied to the Executive Secretary for approval of trial burn plans to burn chemical agents on an interim basis to determine operational readiness. In June 1996, the Executive Secretary approved trial burn plans for three of TOCDF's five incinerators. These approvals constitute permit modifications. In June 1996, the Executive Secretary also modified the TOCDF permit to add the Army's contractor, EG&G, as a co-permitee. The Sierra Club challenged these decisions through two requests for agency action. In its pre-hearing brief, the Sierra Club also indicated that it was requesting that the Board revoke the TOCDF permit.

The Board heard the Sierra Club's challenges during a three-day evidentiary hearing held March 18-20, 1997 and heard closing arguments April 17, 1997. It denied both requests by a vote of 8 to 1. This petition for review followed.

B. The Proceedings Below.

First Request for Agency Action. On July 18, 1996, the Sierra Club submitted its First Request for Agency Action, in which it contended that EG&G failed to timely apply for and receive permits to construct and operate TOCDF. IR-1.

Second Request for Agency Action. On July 27, 1996, the Sierra Club filed its Second Request for Agency Action, which

sought to set aside approvals by the Executive Secretary that allowed the Army to commence TOCDF agent trial burns. IR-2 at 28. In this second request, the Sierra Club alleged that TOCDF operations pose an imminent and substantial endangerment to public health and the environment, could not achieve required destruction and removal efficiencies, could not minimize releases, and did not meet emergency preparedness requirements. Id. at 13-28.

Motions for Stay. On August 20, 1996, the Sierra Club filed its first motion for stay of TOCDF operations. IR-5. Following a hearing on August 22, 1996, the Board denied the motion. IR-12. The Sierra Club filed a second motion for stay on October 18, 1997. IR-21. Following a half-day evidentiary hearing on December 12, 1996, the Board ruled that the Sierra Club failed to carry its burden to justify a stay. IR-72, 74.

Hearing on the Merits. The Sierra Club's first and second requests for agency action were heard at an evidentiary hearing on March 18-20, 1997. IR-162 through 164. Pursuant to a scheduling order issued September 12, 1996, the Board allotted 27 hours to hear the evidence. IR-17 ¶7. It allocated 12 hours to the Sierra Club, 5 hours to the Executive Secretary and 10 hours to the Army and EG&G, collectively. Id. Because of the limited hearing time, the Board invited the parties to submit direct testimony by declaration, provided the declarant would be present at the hearing for cross-examination and to respond to the

Board's questions. IR-75 ¶3. The Army submitted the direct testimony of six witnesses by declaration prior to the hearing. IR-147-154, 156, 158-160. The Executive Secretary submitted the direct testimony of three witnesses by declaration. IR-138a through 138c. The Sierra Club did not submit any declarations.

During the course of the hearing, the Board heard from 16 witnesses and received 61 exhibits. The Army called experts in the fields of health risk assessment, medical toxicology, incinerator technology and quantitative risk assessment as witnesses. IR-163 at 695: IR-164 at 836, 781, 883. Each of these witnesses, as well as the Army's two fact witnesses, responded to the Board's questions. Although the Sierra Club listed 17 experts on its pre-hearing expert witness list, IR-19, it offered no expert testimony at the hearing. Because the Sierra Club used most of its time presenting its case in chief, leaving little time for cross-examination of opposing witnesses, the Board granted the Sierra Club additional time. IR-164 at 731-38, 1043-44. In addition, the State, EG&G and the Army ceded portions of their time to the Sierra Club to enable it to examine witnesses. See, e.g., IR-163 at 905-906; IR-164 at 1090-1091. During the course of the three-day hearing, the Sierra Club used over 15 hours, the State approximately 1 hour and Army and EG&G collectively less than 9 hours. See IR-164 at 1077.[3/]

[3/] Because there was no calculation of time at the end of the hearing, the final figures must be derived using earlier

(continued...)

On the last day of the hearing, the Board rejected a motion by the Sierra Club to amend the scheduling order to provide the Sierra Club an unspecified amount of time to conduct additional cross-examination, 2.5 additional hours to conduct direct and redirect examination of an additional witness and three additional hours to present rebuttal evidence. IR-177; IR-164 at 737-38.

Board's Decision. The Board heard closing arguments on April 17, 1997. IR-169. Following discussion, the Board voted 8 to 1 to deny the first and second requests for agency action. IR-169 at 1243-44.

The Board issued its Order containing findings of fact and conclusions of law on July 22, 1997. IR-173. The Board found that TOCDF does not pose an imminent threat to human health. Id. at 4 ¶10. In making this finding, the Board relied upon the testimony presented and the screening health risk assessment performed by the Utah Department of Solid and Hazardous Waste ("DSHW") contractor, A.T. Kearney. Id. at 4-6 ¶11-16. The Board found that the screening health risk assessment was conducted in accordance with United States Environmental Protection Agency

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3/ (...continued)
calculations. As of 2:30 p.m. on March 20, the Sierra Club had used over 14 hours, the Army & EG&G 7 hours and 42 minutes (which included time the Army ceded to the Sierra Club), and the State used 26 minutes, which included 10 minutes ceded to the Sierra Club. IR-164 at 1076-77. The hearing concluded two hours later, and the Sierra Club used over half of that time, based in part on time ceded to it by the Army, the State and the Board. Id. at 906, 1043-44, 1076.

("EPA") guidance and showed that potential health risks to hypothetical individuals located at points of maximum off-site emissions were at or below EPA risk levels. Id. at 4-5 ¶¶11-13. The Board also found that the risks associated with predicted dioxin emissions, including risks to breast-fed infants, were below a level of concern. Id. at 5-6 ¶¶14-16.

The Board rejected the Sierra Club's contention that the permit should be revoked because of operational incidents occurring at TOCDF since commencement of agent operations. Id. at 7 ¶¶19-22. The Board found that recent TOCDF operations have been carried out to ensure that full-scale operations will be conducted in a manner that maximizes the protection of workers, the public and the environment. Id. at 7 ¶20. The Board found that the incidents identified by the Sierra Club had not resulted in harm to TOCDF personnel, the public or the environment. Id. at 8 ¶21. Moreover, the Board found that corrective actions had been taken in response to each event and were adequately addressed by DSHW, the Army and EG&G. Id. at 8 ¶21.

In its conclusions of law, the Board held that the Sierra Club had failed to provide data or present evidence indicating that the Executive Secretary's approval of the trial burn plans was inappropriate or not in accordance with law. Id. at 10 ¶¶4-5. The Board recognized the importance of the trial burn to understanding any emissions at TOCDF and to provide a reasoned basis to approve full-scale activity at TOCDF once the trial

burns are completed. Id. at 10 ¶¶4-5. The Board concluded that the preponderance of the evidence supported the Executive Secretary's approval of TOCDF's trial burn plans, permit and permit modifications. Id. at 11 ¶8.

With respect to the allegation that the Executive Secretary improperly added EG&G to the permit as a co-operator, the Board concluded that the Executive Secretary acted "within his discretion and in accordance with applicable rules and statutes." Id. at 9 ¶2. In addition, the Board noted that "at no time was TOCDF constructed or operated without a permit." Id.

Related Proceedings in Federal Court. The proceedings below are related to a parallel proceeding before the United States District Court for the District of Utah. In June 1996, the Sierra Club filed a motion for preliminary injunction to prevent commencement of agent operations at TOCDF. Following a nine-day evidentiary hearing at which the Sierra Club raised many of the issues relating to the health risk assessment that it raises in this case, the district court denied the request for injunctive relief. Chemical Weapons Working Group v. Dep't of Army, 935 F. Supp. 1206 (D. Utah 1996). This decision was upheld on appeal. Chemical Weapons Working Group, v. Dep't Of Army, 111 F.3d 1485 (10th Cir. 1997). The Sierra Club filed a second motion for preliminary injunction in federal court on January 11, 1997, in which it raised many of the operational events also raised before the Board. Following a five-day evidentiary hearing, this second

motion was denied. Chemical Weapons Working Group v. Dep't Of Army, 963 F. Supp. 1083 (D. Utah 1997).

C. Statement of Facts

1. TOCDF Background. The United States currently possesses over 30,000 tons of unitary chemical agents in its chemical weapons stockpile. Approximately 13,000 tons of agent are stored at Deseret Army Depot (formerly Tooele Army Depot). IR-150 ¶2. A portion of these chemical agents are currently stored in projectiles, mines, rockets and other munitions containing explosive components. Id. Other chemical agents are stored in munitions that do not contain explosives and in steel containers holding bulk agent. Id.

In June 1989, the Executive Secretary issued a hazardous waste storage and treatment permit for TOCDF. IR-149 at ¶29. The Army completed construction of TOCDF in 1993. IR-149 ¶11.

TOCDF includes a set of five incinerators: (a) two liquid incinerators that are used to incinerate liquid agent that has been drained from munitions and bulk containers; (b) a deactivation furnace system that is used to incinerate munitions containing propellants and explosives; (c) a metal parts furnace that is used to thermally decontaminate metal parts that have been drained of agent, such as bulk containers; and (d) a dunnage incinerator that may be used to burn dunnage such as pallets and spent carbon filters. IR-149 ¶7.

2. Trial Burns. Pursuant to DSHW's regulations and the terms of the permit, the Army has scheduled a series of trial burns at TOCDF. IR-149 ¶11; IR-163 at 562-64. The Executive Secretary required that the Army successfully complete trial burns with non-agent chemicals before approval of trial burns with chemical agents. IR-149 ¶¶11, 12. Therefore, in 1995, the Army began operational testing using surrogates. Id. ¶¶18-19. Pursuant to Utah Admin. R315-8-15.3(b)(1), the Army performed trial burns on the deactivation furnace system and the liquid incinerators using surrogate chemicals chosen to be as difficult to burn as chemical agent. In addition, the Army conducted a research and development trial burn in 1995 pursuant to the requirements of the Toxic Substance Control Act ("TSCA"), which was intended to test destruction and removal efficiency requirement relating to polychlorinated biphenyls ("PCBs"). Id. ¶¶13-20. The results of these burns without agent indicated that the deactivation furnace system and liquid incinerators achieved the required destruction and removal efficiencies. Id. ¶¶13, 18, 19.

3. Risk Assessment. Following completion of the surrogate trial burns, and pursuant to the requirements of its permit, the Army sought the Executive Secretary's approval for its agent trial burn plan. IR-149 ¶11.

In connection with trial burn plan approval and pursuant to guidance issued by EPA, DSHW retained a contractor, A.T. Kearney,

to conduct a screening health risk assessment for TOCDF. IR-149 ¶21; IR-138b ¶11. The screening health risk assessment analyzed, using conservative operating assumptions, the impacts of expected TOCDF emissions on human health and the environment. IR-138d at 1-2. Using these conservative assumptions and following EPA guidance, the health risk assessment modeled the hypothetical potential exposure to six persons: an adult and child residing at the point of maximum off-site emissions, three different farmers residing within six miles of the facility and a subsistence fisher. Id. at 2. For each of these six individuals, assuming simultaneous operation of all five furnaces and other TOCDF facilities for periods of 10, 15 and 30 years, the health risk assessment determined that the overall cancer risk was at or below the EPA guidance level of 1×10^{-5}. Id. at 59-73. Moreover, for each of these six individuals, assuming simultaneous operation of all five furnaces and other TOCDF facilities for 10, 15 and 30 years, the overall non-cancer risk was also at or below EPA-established guidance levels. Id.

4. Agent Operations. On June 18, 1996, the Executive Secretary approved the agent trial burn plan for the deactivation furnace system. IR-149 ¶11. On June 26, 1996, the Executive Secretary approved the agent trial burn plan for the liquid incinerators. Id.; IR-138b ¶9. The Executive Secretary also approved the screening health risk assessment prepared by A.T. Kearney. IR-138b ¶8.

The Army commenced agent operations pursuant to the trial burn plans on August 22, 1997. IR-150 ¶3. These agent operations are part of a "shakedown period" approved by the Executive Secretary, which precedes the formal trial burn. Id. ¶4. The "shakedown period" is designed to identify possible mechanical difficulties, ensure that the facility has reached operational readiness and can achieve steady-state operating conditions. Id. ¶4. As part of the shakedown period, the Army conducts a shakedown burn with agent, which is not to exceed 720 hours per furnace. Utah Admin. R315-3-20(a); IR-162 at 335-36. The Army then performs the trial or "demonstration" burn, which involves operating the incinerators at near-peak capacity for six continuous hours on each of three days to generate the data used to evaluate incinerator performance and establish operating conditions for TOCDF. IR-150 ¶5. TOCDF may operate following the shakedown period upon the approval of the Executive Secretary. Utah Admin. R315-3-20(c).

As of March 14, 1997, the week prior to the commencement of the Board hearing, the Army and EG&G had successfully operated the deactivation furnace system for over 569 hours, the metal parts furnace for over 230 hours and the two liquid incinerators for over 736 hours combined. IR-150 ¶5. As a result, over 11,000 rockets, 173 ton containers and 381,750 pounds of nerve agent had been successfully treated. Id. ¶4.

Since commencement of agent operations in August 1996, three events occurred that caused the Army immediately to shut down operations: (i) detection of low levels of agent in two filter unit containment vestibules; (ii) seepage of a small quantity of decontamination fluid through hair-line cracks in a second level cement floor to a first floor electrical room; and (iii) minor agent migration into an observation corridor. Id. ¶7. The first and third of these incidents involved trace amounts of chemical agent migrating to areas where agent is not supposed to be present. Id. ¶7. Thorough investigations were conducted following each event and corrective action undertaken; the events did not recur. Id. ¶¶8-26. The Executive Secretary was notified of each event, received investigation reports, and concurred in each of the corrective actions. IR-150 ¶19, 20, 26; IR-138b ¶14. None of these events resulted in harm to TOCDF personnel, the public or the environment. IR-150 ¶7.

TOCDF has experienced other less significant operational events during the shakedown period that did not result in a shutdown of operations. Id. ¶27. These include: (i) the facility's response to the loss of electrical power at the site; (ii) a temporary imbalance in the heating ventilating and air conditioning ("HVAC") system created during the testing of the fire suppression system; and (iii) a subcontractor's employee caught falsifying data entries relating to a trial burn run. Id.

Throughout the shakedown period, DSHW has engaged in extensive oversight of TOCDF operations. IR-138b ¶13(d); IR-173 at 7 ¶20. Although the Executive Secretary considered the events described above as significant and requiring analysis and correction, the Executive Secretary did not believe that any one or all of them indicate that TOCDF cannot be operated safely. IR-138b ¶14.

SUMMARY OF ARGUMENT

In the proceeding before the Board, the Board considered nine witness declarations, three days of live testimony and thousands of pages of exhibits. The Board determined that the Sierra Club had not established by a preponderance of the evidence a basis to overturn the Executive Secretary's trial burn approvals or to revoke the TOCDF permit. On appeal, the Sierra Club simply reiterates its view of the harms associated with TOCDF. The Sierra Club has not demonstrated that the Board's findings were not supported by substantial evidence. This Court should reject the Sierra Club's attempt to relitigate its factual case here.

Substantial evidence supports the Board's determination that normal operations pursuant to the trial burn plan will not endanger human health or the environment. The screening health risk assessment showed risks at or below guidance levels. The testimony of DSHW employees and DSHW's contractor supported the Board's conclusion that the risk assessment was prepared in an

appropriate and conservative manner. The Army's risk assessment expert presented additional evidence that dioxin and other risks associated with the trial burn plan were far below levels of concern. The Army's medical toxicologist testified that the levels of dioxin estimated to be emitted from TOCDF are unlikely to produce adverse human health consequences. The Sierra Club offered no expert testimony on the question of imminent harm and did not present any numerical estimates of risk in excess of EPA risk assessment guidance levels.

Substantial evidence supports the Board's finding that the operational history of TOCDF justifies proceeding with the trial burn plan. During the shakedown period, certain events occurred in the process of reaching operational readiness. Each of these events was promptly identified. Each resulted in an investigation into cause and implementation of corrective action. None have recurred. Neither the public nor the environment was harmed. The Executive Secretary and DSHW were notified and consulted, and they approved the corrective actions taken. The testimony of the Executive Secretary, DSHW staff, and the Army's incineration expert all supported the Board's conclusion and decision on this issue.

As a matter of law, the Executive Secretary acted well within his discretion to approve the permit modification to add EG&G to the permit to operate TOCDF. At no time was TOCDF constructed or operated without a permit. Nothing in applicable

federal or state law supports the Sierra Club's charge that the Executive Secretary acted improperly regarding the manner, timing or fact of adding EG&G as a co-permitee.

With respect to the Sierra Club's due process claims, the Board provided the Sierra Club with ample opportunity to present its case on the merits. In light of the circumstances, the Board acted within its discretion and without violating the Sierra Club's due process rights in denying the Sierra Club's motion for additional time in which to present evidence. The fact that the Board, the State, the Army and EG&G all gave additional time to the Sierra Club in which to examine witnesses further attests to the fair, if not generous, treatment accorded the Sierra Club during the proceedings.

ARGUMENT

I. THE BOARD'S DECISION UPHOLDING THE APPROVAL OF THE ARMY'S TRIAL BURN PLAN IS SUPPORTED BY SUBSTANTIAL EVIDENCE

The Executive Secretary's approval of a trial burn plan is one of the steps in the lengthy, detailed procedures for the permitting and approval of facilities treating and disposing of hazardous wastes by incineration. Utah Admin. R315-3-20; see generally Utah Admin. R315-3-1, et seq.; R315-8-15. The purpose of the trial burn plan is allow initial facility operations which can then assist the Executive Secretary in the establishment of final operating procedures for the facility. Utah Admin. R315-3-20(a); R315-3-20(b)(10).

The Board's regulations governing hazardous waste incinerators establish the standard for approval of a trial burn plan. The Executive Secretary shall approve a plan if

a. The trial burn is likely to determine whether the incinerator performance standard is met;

b. The trial burn itself will not present an imminent hazard to human health or the environment;

c. The trial burn will help the Executive Secretary determine operating requirements; and

d. The information sought in (a) and (b) above cannot reasonably be developed by other means.

Utah Admin. R315-3-20(b)(5)(a)-(d). The Sierra Club primarily challenges the Board's determination that the trial burn will not present an imminent hazard to human health and the environment. As discussed below, the Board's determination that neither normal emissions from TOCDF nor its operational history justify denial of the Army's trial burn plan is supported by substantial evidence.

A. The Surrogate Trial Burns Support the Approval of the Trial Burn Plan.

Prior to the Executive Secretary's approval of the the Army's agent trial burn plans, the Executive Secretary required, and the Army completed, trial burns with surrogate chemicals. IR-149, ¶¶12, 17. Substantial evidence supports the Board's finding that these trial burns showed the Army could meet the regulatory destruction and removal efficiencies. IR-149 ¶¶18, 19; IR-153 ¶48. These results demonstrate TOCDF's ability to

operate as intended and destroy waste efficiently, and thereby support the Board's determination that trial burns with agent would not pose an imminent hazard to human health or the environment.

B. Substantial Evidence, in the Form of the Screening Health Risk Assessment and Expert Testimony, Supports the Board's Finding that Anticipated Emissions From TOCDF Will Not Present an Imminent Hazard to Human Health and the Environment.

1. The Screening Health Risk Assessment Conservatively Estimated Risks.

The first stage of a health risk assessment is a screening risk assessment, which is prepared prior to commencement of operations. The purpose of a screening health risk assessment is to provide a conservative estimate of the possible risk of health hazards posed by chemical emissions from a facility. IR-158 at 2. In a screening risk assessment, default assumptions contained in EPA guidance, which are designed to overestimate exposure and risk, are used to calculate potential health risks from a particular activity. IR-138a ¶9. A screening risk assessment does not, and is not intended to, define the actual risk of an activity. Id.; IR-158 at 2.

If a screening risk assessment using default assumptions shows that the risk is clearly acceptable, no further risk analysis may be necessary. IR-138a ¶10. However, because a screening health risk assessment is designed to overestimate exposure and risk, an initial assessment showing significant

risks is intended to be refined using more site-specific parameters to provide a better, but still conservative measure of risk. IR-158 at 6; IR-138a ¶¶12-15.[4/]

The Board's finding that the screening health risk assessment prepared for TOCDF used conservative assumptions to determine resulting risk estimates is supported by substantial evidence. The Board, in its findings of fact, identified three of the many conservative assumptions incorporated into the risk assessment, all of which are supported by the record. IR-173 at 5 ¶12; IR-138d at 10, 33-34, 59-73; IR-158 at 7-8; IR-163 at 658 (seven year operation period). Chris Bittner, DSHW's toxicologist, and Helen Sellers, the consultant at A.T. Kearney who led the preparation of the risk assessment, testified that the risk assessment overstates risk. IR-138a ¶12; IR-164 at 971-72. Dr. Finley, the Army's risk assessment expert, further supported the Board's finding by identifying numerous conservative factors in addition to those cited by the Board. IR-158 at 7-9; IR-164 at 838-844. Taken together, these conservative assumptions likely overestimated risk by at least a factor of ten. IR-164 at 843-44. Dr. Finley also explained how the methodology used to calculate cancer and non-cancer risk increases the conservatism of the risk assessment. IR-158 at 5.

[4/] The screening risk assessment is just the first stage of the risk assessment process. Utah has already started preparing a final health risk assessment, which will be based upon actual TOCDF trial burn data and any changes in EPA guidance. IR-164 at 1042-43, 1056.

No one testified that the screening risk assessment was not based upon appropriately conservative assumptions.

2. Substantial Evidence Supports the Board's Determination that Risks From TOCDF's Emissions Are Below a Level of Concern.

The Board's findings regarding risks from TOCDF emissions are supported by the screening health risk assessment, the testimony of DSHW employees and its contractor, the additional risk calculations presented by Dr. Finley and the medical opinion of Dr. Guzelian.

The Board found that the screening health risk assessment was prepared in accordance both with EPA guidance and with accepted risk assessment practice. This finding was supported by the testimony of Ms. Shilton, Ms. Sellers, Mr. Bittner and Dr. Finley. IR-138c ¶3; IR-164 at 947-48, 966-68; IR-164 at 844; IR-138a ¶16, 18, 20; IR-158 at 10, 12. No one testified that the risk assessment was inconsistent with EPA guidance or otherwise employed improper methodology.

The screening health risk assessment itself directly supports the Board's finding regarding estimated health risks. The risk assessment modeled exposures to six hypothetical individuals: an adult and child residing at the point of maximum off-site emissions, three different farmers modeled upon site-specific data and a subsistence fisher. IR-138d at 15-19. The risks calculated for the six modeled individuals, assuming

simultaneous and continuous operation of all five furnaces at TOCDF for thirty years, were at or below EPA guidance levels. Id. at 56-75. No one testified that these calculations were erroneous.

The Board's finding of an absence of imminent hazard attributable to dioxin emissions is supported by substantial evidence. IR-173 at 5. The Board correctly determined that the risk assessment calculated overall cancer risks from TOCDF emissions, including those associated with dioxin, and found they do not exceed EPA guidance levels, even for a 30-year operating period. IR-138d at 56-75. Moreover, the Board received substantial evidence in the form of expert testimony that potential non-cancer effects of dioxin did not present an imminent hazard. Dr. Finley calculated the average daily intakes of dioxin for the six hypothetical individuals modeled in the screening risk assessment. IR-158 at 13, Table 2. Using EPA guidance methodology, Dr. Finley performed a screening risk assessment for these hypothetical dioxin exposures and testified that these exposures should be below a level of concern for non-cancer effects as well. Id. The Board's finding was further supported by the testimony of Dr. Guzelian, a medical toxicologist, who testified that that the low level exposures to dioxin that may be caused by operation of TOCDF are unlikely to produce adverse human health consequences. IR-159 at 7. The

Sierra Club offered no expert testimony to support an opposing view.

Finally, and most significantly, the Board's finding that no imminent hazard was presented is supported by the testimony of Dr. Finley related to risks associated with the trial burn plans. Dr. Finley testified that cancer and non-cancer risks for an assumed one-year agent trial burn phase are orders of magnitude below EPA guidance levels. IR-158 at 13, Table 10; IR-164 at 855-56. The Sierra Club presented no calculation of risks specifically for the agent trial burn phase. Thus, the only evidence presented at the hearing related to risks associated with the agent trial burn plans demonstrated without contradiction that "the trial burn itself will not present an imminent hazard to human health and the environment." Utah Admin. Code R315-3-20(b)(5)(b)(emphasis added). Indeed, the record could not support a contrary conclusion.

In light of this overwhelming evidence, the Board's decision was reasonable and rational. See Grace Drilling, 778 P.2d at 68.

3. The Sierra Club's Arguments Related to the Risk Resulting From Emissions from TOCDF Are Not Based Upon Substantial Evidence in the Record As a Whole.

The Sierra Club, lacking expert testimony to support its arguments, attempted to demonstrate an imminent hazard before the Board by asserting that risks associated with dioxin emissions pose an imminent hazard and by hypothesizing scenarios more

conservative than those used in the screening health risk assessment. Both arguments failed before the Board. The Board's reliance on the screening risk assessment was justified. In addition, the Board appropriately relied on the expert testimony presented to support its finding of no imminent hazard.

a. The Board's Rejection of The Sierra Club's Dioxin Arguments is Supported by Substantial Evidence.

The subject of the health effects associated with dioxin exposure, particularly low level exposures, is a topic of considerable controversy and scientific attention. IR-159 at 5 ¶11-12; IR-138a ¶¶16, 18. The Sierra Club unsuccessfully raised two related challenges to DSHW's treatment of dioxin emissions from TOCDF. First, it contested the method the screening health risk assessment used to handle non-cancer risks of dioxin. Second, it contended that significant adverse health effects are attributable to low level dioxin exposures. The Board's Order evidences an understanding of this complex topic and its rejection of the Sierra Club's arguments is supported by substantial evidence.

An understanding of the Sierra Club's argument regarding the appropriate method for handling the non-cancer effects of dioxin emissions in risk assessments must start with the concept of a reference dose. A reference dose is intended to represent the daily intake level of a chemical that is unlikely to produce an adverse health effect over a lifetime of exposure. IR-158 at

6-7. Reference doses are calculated in a conservative manner to be protective of the general human population, including sensitive sub-populations. Id. at 6. For example, a reference dose generally is calculated based on the highest dose at which no observed adverse health effects are observed, usually in animals. Id. This level is then adjusted for "uncertainty factors" applied to that dose level depending on the adequacy of the data. IR-159 at ¶13. These adjustments may include dividing the "no effects" level by ten to account for variations in the sensitivity found in the general population, dividing by ten again to account for uncertainty in extrapolating animal data to humans, and dividing by ten again to account for not knowing the precise dose at which "no effect" will occur. Id.; IR-158 at 5.

Thus, reference doses for chemicals are set conservatively at orders of magnitude below the level at which no adverse health effects are observed. IR-158 at 5. For purposes of risk assessment analysis, EPA guidance sets the target risk level at 25% of the the reference doses. IR-138a ¶¶6, 7.

In the case of dioxin, EPA has not set a reference dose. IR-138a ¶16, 18. Nonetheless, there are data available which can form the basis to estimate a "safe" dose. IR-158 at 12, Table 1. Dr. Finley calculated dioxin exposures to the six individuals modeled in the risk assessment. IR-158 at 12-13. Using the 1 picogram/kg-day "reference dose" suggested by the Sierra Club, Appellants' Opening Brief (hereinafter "Sierra Club Brief") at

19-20, none of these hypothetical individuals had an exposure above the EPA target level of 25% of the reference dose. Id. IR-158 at 13, Table 2. Thus, the calculations of Dr. Finley strongly support the Board's findings that non-cancer risks attributable to dioxin do not justify revocation of the TOCDF trial burn approvals.

The Board also properly rejected the Sierra Club's related contention that current background levels of dioxin exposure pose a health risk.[5/] Substantial evidence was presented in rebuttal to this argument. EPA's Science Advisory Board, the group charged with reviewing certain EPA documents, stated that EPA has not presented evidence to support the conclusion that adverse effects in humans may be occurring near current exposure levels. IR-159 at 5 ¶11-12. In addition, Dr. Guzelian testified that low level environmental exposures to dioxin are unlikely to produce adverse human health consequences. IR-159 at 7 ¶15; IR-164 at 791-795. Dr. Guzelian supported his expert opinion with an extensive review of applicable studies and toxicological literature. IR-159, Appendices.

In conclusion, the Sierra Club presented no evidence that the levels of dioxin emitted from TOCDF during the agent trial burn will cause an imminent hazard to human health or the environment. Rather, the Board heard evidence that preliminary

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5/ Background levels are those exposures attributable to sources other than the combustion units being assessed.

results of the January 1997 deactivation furnace system trial burn showed levels of dioxin emissions from the deactivation system furnace roughly equivalent to the dioxin emissions of six residential fireplaces. IR-164 at 847-50. In the absence of evidence of an imminent hazard, the Board's findings are rational and reasonable.

b. There was no evidence that more conservative scenarios would result in an imminent hazard to the public or the environment during the trial burn phase of operations.

The Sierra Club correctly identified target levels for risk in the context of a screening health risk assessment: a cancer risk at or below 1 x 10^{-5} and a hazard index, based on reference doses, of less than or equal to 0.25.[6/] Sierra Club Brief at 15-16. However, the Sierra Club did not present any calculation of a cancer risk or a hazard index for the agent trial burn phase, much less a calculation showing risk values above the target levels. Instead, the Sierra Club took the scenario that produced the highest cancer risk (Farmer C) and tried to layer dairy consumption, breast-fed infants and other conservative factors on top of this risk to establish an imminent hazard.

[6/] For purposes of risk assessments for RCRA-permitted combustion facilities, EPA guidance indicates that the total incremental risk from the high-end individual exposure to carcinogenic constituents should not exceed 1 x 10^{-5}. IR-138a ¶4. This corresponds to a 1 in 100,000 chance of developing cancer as a result of exposure under the particular conservative scenario being evaluated; it does not mean one person in a population of 100,000 will develop cancer because the conservative nature of the analysis does not reflect actual scenarios. See IR-158 at 2.

Sierra Club Brief at 36-37. The Board properly rejected this argument.

First, the Sierra Club's use of the 1×10^{-5} cancer risk for Farmer C calculated in the screening risk assessment bears no meaningful relationship to the actual risks to Farmer C associated with the agent trial burn plans. The screening risk assessment, using its numerous conservative assumptions to calculate potential health risks, calculated a 1×10^{-5} cancer risk for Farmer C for a 30-year operating period during which all furnaces are operated at full capacity, 24 hours per day, 365 days per year. IR-164 at 975. In contrast, the Executive Secretary has only approved operation of four of the five furnaces, for one of the three agents, for a period not likely to exceed a year or two. The closest the screening risk assessment comes to modeling this scenario is a calculation of full-scale operation of the four furnaces with all three agents for ten years. This scenario yields a risk of 3×10^{-6}, a risk one-third below the EPA target level. Much more probative is the risk for Farmer C of 4×10^{-6} calculated by Dr. Finley using the parameters of the trial burn plan. IR-158, Table 10. Thus, no evidence was presented that adding dairy consumption or a breast-fed infant to Farmer C's household would cause the potential risk to exceed the EPA target level of 1×10^{-5} during the trial burn phase.

Second, substantial evidence supports the Board's rejection of the Sierra Club's contention that the risk assessment needed to consider home-grown dairy consumption in order to model accurately risks to the public residing in proximity to TOCDF. DSHW undertook a survey of farming practices in the area surrounding TOCDF and did not locate anyone consuming milk from animals raised on their property. IR-164 at 993-94. Significantly, the Sierra Club presented no witnesses who engaged in or knew of anyone who engaged in subsistence dairy farming in the arid property surrounding TOCDF. As the United States District Court stated in rejecting similar arguments at the hearing on the Sierra Club's motion for preliminary injunction, "a showing that the assumptions used in the risk assessment may indicate a higher level of risk for some hypothetical person . . . does not constitute a showing that there is an actual risk to some person posed by the emissions levels predicted for the facility." Chemical Weapons Working Group, 935 F. Supp. at 1214.

Third, substantial evidence supports the Board's rejection of the Sierra Club's contention that the risk assessment needed to consider risks to breast-fed infants in order to accurately model risks to the public. Applicable EPA guidance does not call for modeling breast-fed infants. IR-164 at 936-37; IR-158 at 13; IR-164 at 844.[7/] In any event, the Board had the benefit of

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[7/] Notwithstanding the Sierra Club's allegation of gross negligence or intentional bias in conducting the screening risk (continued...)

calculations showing the risks to breast-fed infants associated with the TOCDF agent trial burn plan, and this evidence supported the Board's decision. Dr. Finley conservatively modeled the exposures to a breast-fed infant during the trial burn phase and determined that the exposures were below a level of concern. IR-158 at 13; IR-164 at 1025-26. The Sierra Club presented no evidence that breast-fed infant exposures during a trial burn phase exceeded any target level.[8/]

The Board's rejection of the Sierra Club's additional arguments -- that the screening risk assessment was flawed for failure to consider open burning/open detonation activities ("OB/OD") and mustard gas emissions from the HVAC -- is supported by substantial evidence.

The Sierra Club erroneously contends that the screening risk assessment should model risks for OB/OD prior to commencement of the agent trial burn. DSHW has prohibited the Army from conducting OB/OD operations until a risk assessment modeling

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[7/] (...continued)
assessment, Sierra Club Brief at 17, the testimony of Ms. Sellers, Mr. Bittner and Dr. Finley all established that the decision not to include a breast-fed infant scenario was consistent with EPA screening risk assessment guidance and risk assessment practice. IR-138a at ¶17; IR-158 at 7, 13; IR-164 at 936-37.

[8/] Instead, the Sierra Club relied on a 50 picogram/day dose figure calculated in a draft of the screening risk assessment for an infant breast-fed by a woman exposed to 30 years of TOCDF emissions, Sierra Club Brief at 37 and PX-4, and critiqued Dr. Finley's calculation because it did not account for dioxin accumulation in breast milk that would occur over a 10 or 20 year exposure period. IR-164 at 1030-31.

risks associated with that activity is performed and risks are shown to be acceptable. IR-164 at 1050-51. This has not yet occurred. IR-164 at 1054-56. Therefore, the record supports the Board's finding that any risks associated with with OB/OD activities are not imminent.

The issue raised by the Sierra Club related to the modeling of mustard emissions from the HVAC system is also irrelevant to the determinations made by the Board. Quite simply, the Executive Secretary has not approved any incineration activities with mustard. IR-163 at 655-56. Activities involving mustard are estimated to start in late 2001 or 2002. IR-163 at 616. Therefore, any risks associated with incineration of munitions containing mustard agent are not imminent; they must await further applications to and approvals from the Executive Secretary.[9/]

In conclusion, the Sierra Club has not met its burden to marshal all of the evidence supporting the Board's findings on TOCDF emissions risks and shown that, despite these supporting facts, the findings of the Board are not supported by substantial evidence.

9/ In any event, Ms. Sellers and Ms. Shilton adequately explained the change to the risk assessment that relates to the modeling of mustard emissions from the HVAC system and why it still constituted a conservative assumption. IR-164 at 931-32; 996-97, 1015-16.

II. SUBSTANTIAL EVIDENCE SUPPORTS THE BOARD'S FINDING THAT THE INCIDENTS OCCURRING DURING THE SHAKEDOWN PERIOD DO NOT JUSTIFY DENIAL OF THE ARMY'S REQUEST FOR TRIAL BURN PLAN APPROVAL OR REVOCATION OF ITS PERMIT.

The record provides substantial evidence that TOCDF is being operated in a safe manner, and does not endanger human health or the environment. Events typical for a shakedown period occurred during the first six month of agent operations, and each such event was followed by an appropriate response. Investigations were performed. Corrective actions were taken in all cases. Significantly, none of the events have recurred. Based upon this record, the Board had more than substantial evidence to affirm the Executive Secretary's approval of the agent trial burn plans, Utah Admin. Code R315-3-20, and not revoke or terminate the permit. Utah Admin. Code R315-3-16(a)(3).

In this appeal, the Sierra Club repeats a litany of factual allegations to support its position but fails to identify facts in the record that show that the Board's findings were unreasonable. Moreover, it fails to show that, despite the supporting facts, and in light of the conflicting or contradictory evidence, the findings are not supported by substantial evidence. Rather, the Sierra Club simply recites its abridged history of TOCDF operations to have this Court substitute its judgment for that of the Board.

The evidence presented to the Board supporting its decision is overwhelming. The Board heard numerous witnesses testify as

to the operational safety of TOCDF. Mr. Downs testified that incineration and other waste handling activities at TOCDF, if performed in accordance with permit requirements, are and will be done in a manner that protects human health and the environment. IR-138b ¶13. Mr. Downs based his determination on the facility design, which meets or exceeds all regulatory requirements, the facility's redundant safety features, and DSHW's extensive oversight of TOCDF. Id.

The testimony of the witnesses called by the Army also supported the Board's decision. Mr. Thomas, the Army Site Manager, testified regarding the safety and environmental compliance of the facility. IR-154; IR-164 at 894-96. Mr. Holmes, TOCDF Associate Project Manager, explained in detail many of the events occurring at TOCDF since commencement of agent operations. IR-150 ¶¶7-26; IR-163 at 571-666. The Army's incineration expert, Mr. Cudahy, testified that TOCDF is a state-of-the-art facility that is properly installed and will be safely and effectively maintained and operated. IR-153 ¶99. As noted by Mr. Cudahy, the important aspect of the various shakedown events is that facility engineering controls and operational procedures worked as intended and there was no confirmed release of agent. IR-152 at ¶¶7-13.

In contrast, no one testified at the hearing that the events during shakedown at TOCDF endanger human health or the environment, or that they presage any endangerment.

To support their allegations of operational deficiencies the Sierra Club provides an incomplete picture of a variety of operational events. As part of the methodical process during shakedown to ensure that TOCDF operations will provide maximum protection to workers, the public and the environment, three events prompted the Army to cease operations. IR-150 ¶6. Following each of these three events – agent present in a vestibule, a leak of decontamination solution in a processing area and minor agent migration into an observation corridor – the Army or EG&G undertook a thorough investigation. IR-150 ¶¶15-17, 23, 25. The investigations yielded corrective action – reconfiguring dampers in the HVAC system, a sealing of concrete cracks and a concrete inspection program, and installation of additional corridor alarms and additional training regarding operating procedures. IR-150 ¶¶19, 23, 26; IR-163 at 611-12. The Army notified the Executive Secretary of each of these events and the Executive Secretary and DSHW approved the corrective action. IR-150 ¶¶19-20, 26; IR-138b ¶14. Since the occurrence of each of these events, there has been no agent detected in the vestibule, no leaking of fluid through concrete cracks and no agent detected in the observation corridors. IR-150 ¶19; IR-154 ¶9.

The Board's findings that these events were properly addressed and did not result in harm are fully supported by the evidence. IR-173 at 8 ¶21. The testimony of Mr Holmes, Mr.

Thomas and Mr. Downs provided an adequate description of the events and the corrective action taken in response. See IR-150 ¶¶8-43; IR-154 ¶¶8-11. The Board's finding that none of these events resulted in harm to TOCDF personnel, the public or the environment was directly supported by the testimony of Mr. Holmes. IR-150 ¶7.

The Board's findings in paragraph 19 of the Board's decision regarding the evidence presented by the Sierra Club relating to certain other events at TOCDF are reasonable. IR-173 at 7 ¶19. The Board's finding concerning the adequacy of electrical power back-up is fully supported by Mr. Holmes' thorough description of the electrical power system and his testimony that the backup power system has operated upon a loss of power. IR-163 at 587-89. The Board heard testimony explaining the the Army's prompt response to the temporary HVAC imbalance during maintenance of the fire suppression system and the corrective training provided that has prevented a recurrence of this event. IR-150 ¶34; IR-163 at 592-94. The Board heard lengthy testimony from Mr. Holmes regarding the "hot cut-out" procedures that are an expected part of operations and for which workers are appropriately equipped. IR-163 at 602-09.

The Board made specific findings concerning an event involving the falsification of data on a trial burn monitoring report, all of which are supported by substantial evidence. IR-173 at 2 ¶3, 9 ¶3. Both EG&G and DSHW discovered the

falsification the day it occurred and immediately reported the incident. E-2; IR-163 at 683-84. The responsible employee, who was employed by a subcontractor to assist in data collection during the trial burn, was terminated. IR-163 at 682-83. The trial burn data were discarded. IR-163 at 683. Extensive ethics training was given by the subcontractor to its employees. IR-163 at 686-87. An investigation revealed that the employee acted alone. Id. at 683. Because the falsification of data related to the temperature needed to preserve a sample, and was not part of the combustion process, safety at TOCDF was never compromised. IR-163 at 596-97. The problem has not recurred. IR-163 at 691. The Board's inferences drawn from this evidence are reasonable and, therefore, must be affirmed.

The Board's finding that the stack is appropriately monitored for agent emissions with ACAMS and DAAMS systems is supported by substantial evidence.[10/] The Board heard extensive testimony from Ms. Ng and Mr. Holmes regarding operations of the air monitoring equipment. IR-162 at 369-394; IR-163 at 400-410, 584-86. Ms. Ng explained that the many ACAMS readings indicating detection of agent shown to her on cross-examination were the results of tests, or challenges, and not emissions of agent out

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10/ TOCDF uses two monitoring systems for detecting the presence of chemical agent. An ACAMs system is used to determine agent concentrations on a near real-time basis. The DAAMs system collects agent onto an absorbent material inside a testing tube over an extended period of time, and is subsequently analyzed at a laboratory for the presence of agents. IR-150 ¶11.

of the stack. IR-163 at 401. Both Mr. Downs and Mr. Holmes testified that there has never been a confirmed release of agent at TOCDF. IR-150 ¶37; IR-162 at 110-111.[11/]

Regarding the Sierra Club's allegation of low level agent releases, Sierra Club Brief at 37, the record shows its argument is based on a misinterpretation of the data and, even if true, would not establish any imminent hazard to human health and the environment. The Sierra Club's argument is based upon data recorded in a range below which agent levels can accurately be measured, known as "LOQ". IR-150 ¶37; IR-151 ¶8. This LOQ defines the lowest detectible concentration that can be reliably measured, considering the sensitivity or calibration range of the measuring instrument. IR-150 ¶37. Readings below the LOQ could be caused by a number of factors (machine noise, artifacts or false positives), but should not be used conclusively to show the presence of agent. IR-150 ¶37. In any event, the LOQ is at a level approximately equivalent to a GB stack concentration over 5,500 times less than the maximum allowable regulatory-based GB stack concentration. IR-151 ¶7.

[11/] The Sierra Club relies upon Mr. Thomas' testimony that there have been "a confirmed number of alarms on the abatement stack of six." Sierra Club Brief at 26-27, 34. The Sierra Club does not quote the question to which Mr. Thomas responded, which asked "Do you know how many ACAMS alarms have been experienced facility-wide, whether you consider it to be true or false alarms." IR-164 at 891. The Sierra Club never clarified whether the six alarms mentioned by Mr. Thomas were true alarms reflecting a detection of agent.

Finally, the Board's determination that the risks of fatalities associated with continued storage of agent in stockpiles greatly exceeds those associated with accidental releases resulting from TOCDF operations, IR-173 at 6-7, is directly supported by the testimony of the Army's quantitative risk expert, Gary Boyd. A quantitative risk assessment examines actual risks associated with accidental releases of agent in the context of TOCDF operations. IR-156 ¶31. The quantitative risk assessment presents a calculation of the actual probability of occurrence of events leading to an accidental release of chemical agent and evaluates the potential consequences of such releases in terms of fatalities. Id. ¶¶9, 16. It also contains a comparison of these risks with the risks of accidental releases of agent associated with continued storage. Id. ¶11. The Board's finding that the total risk of accidental fatalities associated with TOCDF operations is equivalent to the risks associated with only 34 days of continued storage is directly supported by Mr. Boyd's testimony regarding quantitative risk. Id. ¶19. Because the Sierra Club's challenges to the quantitative risk assessment were rebutted by Mr. Boyd (id. ¶8; IR-163 at 704) this finding is supported by substantial evidence.

In summary, the evidence of the events themselves, as well as the Army's response to them during the shakedown period, amply demonstrates that the Sierra Club has not shown that TOCDF poses

an imminent hazard, and that the Board's determination is supported by substantial evidence.

III. THE COURT SHOULD AFFIRM THE BOARD'S CONCLUSION THAT THE EXECUTIVE SECRETARY PROPERLY ADDED EG&G TO THE PERMIT

The Sierra Club contends that the "plain language of the statute" indicates that the Executive Secretary erred in not requiring, at an earlier point in time, that EG&G be added to the permit as a co-permitee. See Sierra Club Brief at 39-40. The relevant statutory language relied upon by the Sierra Club provides as follows:

> No person may own, construct, modify, or operate any facility or site for the purpose of disposing of nonhazardous waste without first submitting and receiving the approval of the executive secretary for a nonhazardous solid or hazardous waste operation plan for that facility or site.

Utah Code Ann. § 19-6-108(3)(a).

In explaining the practical application of this language, the Executive Secretary explained during his examination by the Sierra Club that it is not unusual for a hazardous waste facility to have contractors and subcontractors participating in operating the facility, even in a substantial way. However, the existence of such contractors does not necessarily mean that they are all "operators" of the facility within the meaning of the Utah Solid and Hazardous Waste Act. IR-162 at 167-69. Thus, the Executive Secretary reasonably interpreted the Act and the extent of his discretion by determining that the Army, as owner and operator of the facility, could be the sole permitee during the construction

and systemization phases. This is especially true given that the Army has ultimate responsibility for construction and operation of the facility. Id. at 42. Prior to the commencement of operations with agent, the Executive Secretary reasonably exercised his discretion to add EG&G to the permit given that EG&G would function as the primary contractor in operating the facility. Id. at 167. Nothing in the statutory language prohibits such an interpretation and application of the permit requirements.[12/]

Next, the Sierra Club criticizes the Executive Secretary for adding EG&G to the permit, in June 1996, because "EG&G had been blatantly violating the fundament [sic] rule of the Act, i.e., operators must have permits, for at least well over six months. In light of this violation, it was error for the Board to approve giving EG&G a permit to operate TOCDF." Sierra Club Brief at 40. It is difficult to understand the basis of this argument given that EG&G agreed to be added to the permit at the time and in the manner requested by the Executive Secretary. IR-162 at 167-69; IR-138b ¶7.

The Sierra Club also argues that the Executive Secretary should not have approved the addition of EG&G to the permit in

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[12/] The Sierra Club's reading of the statute would require every person or company that participates in the construction or operation of a regulated facility to apply for a permit, and the Executive Secretary would have no discretion to consider the particular circumstances of the facility and the parties involved. The Utah Legislature could not have contemplated such an unworkable and burdensome result given the complexity of permitting these facilities. See generally Utah Admin. R315-3.

light of various incidents that allegedly demonstrate that EG&G personnel lack adequate training to operate TOCDF safely. Sierra Club Brief at 41-42. The Court should likewise reject this contention. First, the incidents the Sierra Club refers to occurred after EG&G was added to the permit. Thus, the Executive Secretary could not have considered them in connection with processing the permit modification to add EG&G to the permit. Second, and most importantly, the record does not support that EG&G personnel lack training to operate the plant safely. After considering extensive testimony and documentary evidence regarding the nature, causes and responses to the alleged incidents, the Board concluded as follows: "With proper responses to incidents or concerns, appropriate reviews and changes in or temporary suspension of operations, the Army and EG&G have operated the facility in such a way as to minimize the release of hazardous waste and to avoid imminent hazards and mitigate any impacts to public health." IR-173 at 4 ¶10. The Board's finding that EG&G was properly added should stand.

IV. THE HEARING PROCEDURES DID NOT VIOLATE THE SIERRA CLUB'S DUE PROCESS RIGHTS

The Sierra Club maintains that the Board violated its procedural due process rights by allowing it only 12 hours to present its case and by denying the Sierra Club's motion for an

additional allotment of time.[13] Sierra Club Brief at 44-46. Under any standard of review, The Sierra Club's due process claim lacks merit.[14]

The Sierra Club cannot dispute that the Board provided all parties, including the Sierra Club, with all of the procedural safeguards available in administrative proceedings, namely trial-like procedures in a formal adjudicative hearing governed by the

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[13] The Sierra Club claims violations under both the United States Constitution Amendment XIV and Utah Constitution Article 1, Section 7. The Utah Constitution's due process clause provides the same level of protection that the federal due process clause provides. Thus, the same standards and analysis apply to both claims. In Re Worthen, 926 P.2d 853, 876 (Utah 1996).

[14] The Sierra Club claims that the standard of review that governs review of its due process claim is the less deferential "correction-of-error" standard. The Army and EG&G do not disagree. Under any standard of review, the procedural due process afforded the Sierra Club in the proceedings before the Board satisfy due process requirements. Nevertheless, the Army and EG&G note that courts of appeals generally apply a more deferential "abuse of discretion" standard when evaluating whether a lower court or administrative agency properly managed the case or hearing before it. See, e.g., Shepherd v. Shepherd, 876 P.2d 429, 432 (Utah Ct. App. 1994) ("A trial court has broad discretion to determine the manner in which proceedings before it are conducted. … We will not interfere … unless the trial court abused its discretion."); Berrett v. Denver & Rio Grande W. R.R. Co., Inc., 830 P.2d 291, 293 (Utah Ct. App.), cert. denied, 836 P.2d 1383 (Utah 1992) (applying abuse of discretion standard to review of trial court's case management); Adkins v. Trans-Alaska Pipeline Liab. Fund, 101 F.3d 86, 89 (9th Cir. 1996) ("While we review due process challenges *de novo*, … we defer to an administrative agency's fashioning of procedures."); Michigan Consol. Gas Co. v. Federal Energy Regulatory Comm'n, 883 F.2d 117, 125 (D.C. Cir. 1989) ("Courts generally accord agencies broad discretion in fashioning hearing procedures") (quoting Lyons v. Barrett, 851 F.2d 406 (D.C. Cir. 1988)); Superior Oil Co. v. Federal Energy Regulatory Comm'n, 563 F.2d 191, 201 (5th Cir. 1977) ("agencies are best situated to determine how they should allocate their finite resources").

Rules of Evidence. See Utah Code Ann. § 63-46b-8. The Sierra Club presented opening and closing statements, offered numerous exhibits for admission, offered live testimony from witnesses (through direct, cross and redirect examinations), filed extensive pre- and post-hearing briefs, and offered additional testimony in the form of hundreds of pages of transcripts of prior trial and deposition testimony from this proceeding and two related federal hearings. PX-8; PX-12; IR-163 at 481-82; IR-164 at 795-96, 857.

Despite the availability of these procedures, the Sierra Club nevertheless claims that the Board's formal adjudicative hearing, which lasted over three days and generated a transcript 1,244 pages in length, did not provide a meaningful opportunity to be heard because the Board limited the amount of time the Sierra Club was allotted to present its case. The procedural rules governing formal adjudication specifically contemplate that the hearing officer can impose "reasonable" limits to the length of witness testimony, cross-examination and oral argument. See Utah Code Ann. § 63-46b-8(a); Utah Admin. R315-12-6.

Of course, every losing party can claim that had it been given more time to present its case, it would have prevailed. However, courts carefully scrutinize such claims and consider the reasonableness and adequacy of the procedural protections in light of the particular facts. See generally Worrall v. Ogden City Fire Dep't, 616 P.2d 598, 602 (Utah 1980) ("Due process is not a technical conception with a fixed content unrelated to time, place,

and circumstances; it is flexible and requires such procedural protections as the particular situation demands.").[15/]

The record in the instant case demonstrates that the exercise of the Board's discretion to limit the amount of time allowed the parties to present their cases was reasonable and did not violate the Sierra Club's procedural due process rights. First, the Sierra Club knew many months in advance that it was limited to 12 hours to present its case, see IR-17 (Order dated Sept. 17, 1996), but did not challenge these limits until the third day of the hearing (March 20, 1997). IR-164 at 723-24.[16/]

Second, in denying the Sierra Club's motion for additional time, the Board may have observed how the Sierra Club had used its time poorly by conducting lengthy, argumentative and redundant

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[15/] The Sierra Club relies on several cases to support its claim that the time limits imposed on it by the Board constitute, per se, substantial prejudice. However, these cases present egregious procedural constraints not present in the proceeding challenged here. For example, in D.B. v. Division of Occupational & Prof'l Licensing, 779 P.2d 1145, 1147 (Utah Ct. App. 1989), the agency denied complainant any opportunity to cross-examine any of the opposing party's witnesses. Similarly, in R.W. Jones Trucking, Inc. v. Public Serv. Comm'n, 649 P.2d 628 (Utah 1982), the complainant had no opportunity to present any evidence on any of the issues. Finally, in Tolman v. Salt Lake County Attorney, 818 P.2d 23 (Utah Ct. App. 1991), the accused party was not allowed to cross-examine the accusing party at all.

[16/] The Sierra Club specifically objected to the fact that the time used by members of the Board to ask questions was counted against the party that offered the witness. See IR-164 at 727. As a consequence and as a further concession to the Sierra Club, the Board allotted the Sierra Club 30 additional minutes to offset time the Board used to question the Sierra Club's witnesses. IR-164 at 732, 736-38.

examination of various adverse witnesses. See Id. at 719 (argument in opposition to motion for additional time); see, e.g., IR-162 at 34-144, 145-149 (lengthy examination by the Sierra Club of Dennis Downs even though the Sierra Club had previously offered a two volume transcript of its deposition of Dennis Downs into the record (IR-68, 70)). The Board remarked upon the need for the Sierra Club to use its time appropriately. IR-164 at 729, 732.

Third, the Board had already gone to great lengths to accommodate the Sierra Club's procedural demands. For example, the Board delayed and rescheduled proceedings in the case twice at the request of the Sierra Club. IR-164 at 729. The Board allocated the Sierra Club 12 hours, but the Sierra Club was allowed to use over 15 hours. IR-164 at 1076-1077, 1090-1092. In contrast, the State used approximately 1 hour and Army and EG&G collectively less than 9 hours. IR-164 at 1076-1077. Moreover, the Board accepted into evidence, in lieu of live testimony, affidavits, information contained in pre-trial briefs, IR-164 at 730, lengthy deposition transcripts, IR-163 at 487, transcripts of testimony given in federal court, id. at 481-2, IR-164 at 795-96, 857, and lengthy diaries which expounded upon one witness's testimony, id. at 517.

Thus, the Board's imposition of time limits and denial of The Sierra Club's motion for additional time were reasonable under the circumstances and did not violate the Sierra Club's right to procedural due process. In similar circumstances, various courts have held that time limitations do not rise to the level of a due

process violation. See, e.g., Childs v. Copper Valley Elec. Assoc., 860 P.2d 1184, 1190 (Alaska 1993) (holding that time limits on testimony were reasonable); Clark v. Board of Dir. of Kansas City School Dist., 915 S.W. 2d 766, 772 (Mo. Ct. App. 1996) (holding that agreed-upon time constraints did not violate party's due process rights); In re Application of Lamb, 539 N.W.2d 865, 866-67 (N.D. 1995) (holding that, despite time limit, complainant had "reasonable opportunities to present and examine witnesses, to present evidence, to respond to evidence presented against his applications, and to argue his case").

Finally, we note that the United States District Court for the District of Utah issued a decision on October 14, 1997, in which it considered the due process afforded the Sierra Club in the hearing before the Board. The district court, in its analysis of EG&G's motion to dismiss based on collateral estoppel, concluded that the Sierra Club "received all the opportunity for full and fair litigation that Utah law or the federal constitution require." Chemical Weapons Working Group v. Dep't Of Army, No. 2:96-CV-0425C, slip op. at 7 (Oct. 14, 1997) (Campbell, J.) (attached hereto as Addendum B). This Court should reach the same conclusion.

CONCLUSION

For the reasons described above, the Army and EG&G respectfully request that the Court affirm the Board's decisions.

DATED this 15th day of December, 1997.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that on this 15th day of December 1997, a true and correct copy of the foregoing **BRIEF OF INTERVENORS [UNITED STATES DEPARTMENT OF THE ARMY AND EG&G DEFENSE MATERIALS, INC.]** was placed in the U.S. Mail, first-class postage prepaid, addressed to:

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Lia Kawakami

Addendum A

BEFORE THE UTAH SOLID AND HAZARDOUS
WASTE CONTROL BOARD

IN THE MATTER OF:

The Tooele Chemical Agent Disposal Facility's Permit and Permit Modifications	*	ORDER
EPA ID No. UT5210090002	*	

This matter came before the Utah Solid and Hazardous Waste Control Board (the Board) for hearing on March 18-20 and April 17, 1997 on the First and Second Requests for Agency Action by the Petitioners, Chemical Weapons Working Group, Inc., Sierra Club and the Vietnam Veterans of America Foundation. Also participating were the Respondents, U.S Department of the Army (Army) and EG&G Defense Materials, Inc. (EG&G), and the Executive Secretary. The parties were represented by counsel. A quorum of Board members was present and voted on the motions resulting in this Order. The hearing was conducted as a formal hearing under the authority of the Utah Administrative Procedures Act, Utah Code Ann. section 63-46b-1 et seq. (1953, as amended), and Utah Admin. Code R315.

The Board, having reviewed the record in this matter, and upon consideration of the pleadings, evidence and arguments of counsel, voted to deny the First and Second Requests for Agency Action, for the reasons on that day orally assigned. The Board hereby issues its written Findings of Fact, Conclusions of Law, Statement of Reasons for Decision, and Order, as required by Utah Code Ann. section 63-46b-12.

FINDINGS OF FACT

EG&G As Co-Permittee

1. When the Executive Secretary of the Utah Solid and Hazardous Waste Control Board (Executive Secretary) approved a hazardous waste facility operation plan (plan or permit) for the Tooele Chemical Agent Disposal Facility (TOCDF) in 1989, he issued the permit to the Tooele Army Depot as owner and operator. Since the Army had ultimate responsibility for ownership and operation of the facility, the Executive Secretary properly determined that EG&G need not be included in the permit as a co-permittee.

2. The Executive Secretary, at his discretion, approved a permit modification on or about June 18, 1996, adding EG&G, a contractor working for the Army at TOCDF, as co-permittee.

Falsification of Temperature Reading

3. On or about January 9, 1997, an employee of TRC Environmental Corporation, a subcontractor to EG&G, intentionally recorded false information in connection with a temperature reading during a trial burn. The incident was investigated after being discovered by a state inspector and EG&G representatives, and the trial burn data for that incident were discarded and not used. EG&G ordered its subcontractor to permanently remove the employee from TOCDF. TRC agreed and did so.

Approval of Trial Burn Plans and TOCDF Operations

4. On June 18, 1996 and June 26, 1996, respectively, the Executive Secretary approved the Deactivation Furnace and Liquid Incinerator Agent Trial Burn Plans. Prior to approval of the trial burn plans, the Executive Secretary required the successful completion of surrogate trial

burns in both the Deactivation Furnace System (DFS) and the Liquid Incinerator (LIC). The plans for these surrogate trial burns were published for a public comment period with public meetings scheduled during the comment period. After considering the public comments, the Executive Secretary approved the surrogate trial burn plans. The Board finds and concludes that the Executive Secretary properly approved the trial burns and TOCDF agent operations for the TOCDF facility.

5. In their Second Request for Agency Action, Petitioners alleged four bases for setting aside the Executive Secretary's approval of the trial burn plans. These allegations were that the TOCDF: (1) poses an imminent threat to human health and the environment; (2) that it could not prevent or minimize releases; (3) that it could not achieve the required Destruction and Removal Efficiency (DRE); and (4) that it did not meet emergency preparedness requirements.

6. Before becoming fully operational, TOCDF has scheduled four trial burns for the DFS: (1) a "shakedown burn" with no agent; (2) an "R&D burn" with no agent; (3) a "shakedown burn" with agent; and (4) a "demonstration burn" with agent. TOCDF completed the first two burns in the DFS prior to August 22, 1996. The successful completion of these burns formed a strong basis to believe that TOCDF would complete the agent trial burns successfully.

7. Before agent operations, pursuant to a permit (the "R&D Permit") issued by the U.S. Environmental Protection Agency (EPA) under the federal Toxic Substances Control Act (TSCA), TOCDF conducted a trial burn which was intended to test, and ultimately did show, that the DFS was capable of incinerating PCBs to the regulatory 99.9999% ("six nines") level.

8. TOCDF also completed surrogate trial burns (STB) in the Liquid Incinerator #1

("LIC-1") and the DFS, and a TSCA research and development test burn in the DFS. The LIC-1 STB was conducted in June-July, 1995, and the DFS STB was conducted in October, 1995. The destruction removal efficiency achieved for each test was in excess of the six-nines required. The results of the tests were summarized in reports submitted to the Executive Secretary and the Utah Division of Solid and Hazardous Waste (DSHW).

9. The Executive Secretary issued the required approvals to initiate agent shakedown operations in preparation for trial burns with GB-filled M55 rockets. This approval included, but was not limited to, finalization of the screening risk assessment and approval of the LIC and the DFS agent trial burn plans. A letter summarizing approval to start agent shakedown operations was signed by the Executive Secretary on June 26, 1996.

10. The Board finds that the facility does not pose an imminent threat to human health and the environment, that TOCDF can prevent or minimize releases, that the facility can achieve the required DRE, and that it meets emergency preparedness requirements. With proper responses to incidents or concerns, appropriate reviews and changes in or temporary suspensions of operations, the Army and EG&G have operated the facility in such a way as to minimize the release of hazardous waste and to avoid imminent hazards and mitigate any impacts to public health.

Screening Health Risk Assessment

11. Prior to approving trial burns of chemical agent at TOCDF, DEQ through its contractor, A.T. Kearney, performed a Screening Health Risk Assessment (SRA) which analyzed the impacts of the expected TOCDF emissions on human health and the environment. The SRA followed applicable EPA guidance.

12. In keeping with the EPA guidance and current risk assessment practice, the SRA used conservative assumptions to determine the resulting risk estimates, including for example: (1) DEQ used maximum JACADS emissions levels, which it increased to account for the greater capacity of TOCDF, to model TOCDF air emissions; (2) DEQ assumed that emissions at TOCDF would be twice the JACADS detection limits in the cases where compounds were not detected; and (3) DEQ calculated the risks from exposure for up to thirty years of TOCDF emissions, when in fact, the facility is planned to operate for only about seven years.

13. The SRA examined the potential exposures to a hypothetical adult and child residing at the point of maximum off-site emissions, three different farmers modeled upon site-specific data and a subsistence fisherman. Each of these individuals was modeled to live north of TOCDF, which is downwind of the facility for 350 days of the year. For each of these six individuals, assuming simultaneous and continuous operation of all five furnaces and other TOCDF and CAMDS facilities for thirty years, the overall cancer and non-cancer risks were at or below EPA risk levels.

14. With respect to cancer effects of dioxin, the risk assessment used EPA's current conservative methodology to calculate overall cancer risks from TOCDF emissions and found that the overall cancer risks do not exceed EPA guidance levels for ten, fifteen and thirty-year operating periods. The SRA did not include a calculation of non-cancer effects of dioxin exposure because EPA had not adopted a reference dose for dioxin. Respondent's expert, Dr. Finley, calculated average daily intakes of dioxin for the six risk assessment scenarios used by DEQ in the SRA, and testified that these exposures should be below the level of concern for non-cancer effects.

15. Dr. Finley also calculated the cancer and non-cancer risks for a likely one-year trial burn period and determined that conservatively estimated risks were orders of magnitude below EPA target levels. He also declared that the conservatively estimated doses of dioxin to a breast fed infant were below the level of concern.

16. Respondents' medical expert, Dr. Guzelian, testified that low level environmental exposures to dioxin are unlikely to produce adverse human health consequences. EPA's Science Advisory Board also has reported that the scientific evidence compiled by EPA does not support a conclusion that adverse effects in humans may be occurring near the current exposure levels. There is insufficient evidence to conclude that low level exposures to dioxin that may be caused by operation of the facility will cause, or are likely to cause, adverse human health effects.

Quantitative Risk Assessment

17. Using an independent contractor, the Army arranged for preparation of both a quantitative risk assessment for the first two disposal campaigns and a comprehensive quantitative risk assessment for all TOCDF operations, performed using information specific to TOCDF, as recommended by the National Research Council. These assessments quantified the actual probability of occurrence for events leading to an accidental release of chemical agent and evaluated the potential consequences of such releases in terms of fatalities. The analysis, completed in December, 1996, confirmed the Army's earlier determination that the risks of fatalities associated with storage greatly exceed those associated with TOCDF operations. The total risks of accidental fatalities for an assumed 7.1 year period of TOCDF operations are equivalent to the risks associated with only thirty-four days of continued storage. With respect to individuals living closest to TOCDF, the risks resulting from continued storage are one hundred

times greater than the risks resulting from disposal operations.

Revocation/Termination of Plan Approval; Non-Compliance Issues

18. Petitioners have challenged the Executive Secretary's issuance of the plan approval and certain modifications thereto on grounds of the permittees' non-compliance with the law and the permit, and with an allegation that the Executive Secretary's actions were unsupported by substantial evidence or were arbitrary and capricious. Petitioners did not present evidence that either the Army or EG&G has had a poor compliance history on safety and environmental issues or has failed to comply with legal or permit requirements in connection with TOCDF. The Board finds no evidence sufficient to justify revocation or termination of the Army and EG&G's permit on these grounds.

Revocation/Termination of Plan Approval; Operational Incidents

19. Petitioners allege that the permit should be revoked or otherwise terminated because of certain incidents described in the evidence presented to the Board, namely: agent migration into filter vestibules, cracks in a concrete floor, agent migration into an observation corridor, facility response to a loss of site electrical power, fire suppression system test and temporary HVAC imbalance, agent quantification anomaly, improper hot cut-outs and the question of agent emissions in the TOCDF stack effluent gases. The Board finds no evidence sufficient to justify revocation or termination of the Army and EG&G's permit on these grounds.

20. Operations at TOCDF during the shakedown period have proceeded deliberately to ensure that full-scale operations will be conducted in a manner that maximizes the protection of TOCDF workers, the public and the environment. DSHW has engaged in extensive oversight of TOCDF operations. DSHW has an office on the facility, has conducted oversight on almost a

daily basis, and has a real-time computer link which transmits data to a computer terminal at DSHW's offices in Salt Lake City.

21. During the shakedown period, three events occurred that caused Respondents to immediately shut down operations: detection of low levels of agent in two filter unit containment vestibules, leakage of a small quantity of decontamination fluid passing through hairline cracks in a second level cement floor to a first floor electrical room, and minor agent migration into an observation corridor. Two of the incidents involved trace amounts of chemical agent migrating to unintended areas. None resulted in harm to TOCDF personnel, the public or the environment. Descriptions of the events and corrective actions taken in response to each event have been adequately explained to the Board and the Executive Secretary, and were adequately addressed by the Army and EG&G.

22. With regard to the other incidents described in paragraph 19 above, the Board finds that: adequate backup generators are in place at TOCDF, and there has never been an occasion when the backup power system failed to operate upon loss of power; the fire suppression system test and temporary HVAC imbalance was properly responded to and TOCDF personnel have received corrective training; the agent quantification system anomaly has been corrected; hot cut out procedures are a normal part of facility operations, and appropriate workers are equipped with protective equipment; and stack effluent gases are appropriately monitored by ACAMS and DAAMS systems and the agent readings in the ACAMS TREND reports were challenges to the monitoring equipment and not releases of agent.

CONCLUSIONS OF LAW AND REASONS FOR DECISION

1. In approving the permit in 1989, the Executive Secretary acted in accordance with

applicable rules and statutes, and acted in a manner that was appropriate and timely. The Board recognizes that it is not unusual for a hazardous waste facility to have subcontractors or contractors participating in operating the facility. The existence of such contractors does not necessarily mean that they are "operators" of the facility within the meaning of the Utah Solid and Hazardous Waste Act and rules issued thereunder. As the Army had ultimate responsibility for ownership and operation of the facility, the Executive Secretary properly determined that EG&G, a contractor for the Army, need not be included in the permit as a co-permittee.

2. While not legally required to add the Army's contractor, EG&G, as co-permittee, the Executive Secretary acted within his discretion and in accordance with applicable rules and statutes, including RCRA section 3005, 42 U.S.C. section 6925, and the Utah Solid and Hazardous Waste Act, Utah Code Ann section 19-6-108, and acted in a manner that was appropriate and timely, in approving the permit modification adding EG&G as co-permittee in 1996. The Executive Secretary acted properly and well within his discretion regarding the timing and processing of the TOCDF permit given the generalized nature of the applicable statutory and regulatory requirements. At no time was TOCDF constructed or operated without the required permit(s).

3. The January 9, 1997 recording of false information regarding a temperature reading by an employee of TRC during a trial burn was discovered by EG&G and DSHW personnel on that same day. The temperature readings did not affect the burn itself, but related to the temperature needed to preserve a sample. EG&G quality assurance staff immediately recorded the incident and commenced preparation of a deficiency report. At that time, EG&G ordered its subcontractor to permanently remove the employee from TOCDF. TRC agreed and did so. TRC

also indicated that the employee acted alone and took full responsibility for its employee's misconduct. TRC agreed to pay for the repeat of the trial burn run, given that the results of the January 9 run were discarded. In addition, as further corrective action to avoid any repeat of the incident, TRC conducted extensive ethics training for its employees working at TOCDF. EG&G's Risk Management Department Director, Tom Kurkjy, testified that the problem has not reoccurred.

4. The Petitioners have failed to provide data or present evidence indicating that the Executive Secretary's approval of trial burns was inappropriate or not in accordance with law. The Board recognizes the importance of trial burn data relative to understanding any emissions at TOCDF and for purposes of approval of full-scale activity at TOCDF once the trial burns are completed. The Board finds and concludes that the Executive Secretary and DSHW acted properly in approving the trial burns and in the collection of data during the trial burns.

5. Rule R315-3-20 of the Utah Administrative Code establishes the standard to issue a hazardous waste incinerator plan approval (permit). Under the provisions of R315-3-20(b)(5), the Executive Secretary shall approve a plan if: (1) the trial burn is likely to determine whether the incinerator performance standard can be met; (2) the trial burn itself will not present an imminent hazard to human health or the environment; (3) the trial burn will help the Executive Secretary determine operating requirements; and the information sought in items (1) and (2) cannot reasonably be developed through other means. In their Second Request for Agency Action, Petitioners alleged four bases (listed in paragraph 5 above) for setting aside the approval of the trial burn plans. The Board concludes that Petitioners have failed to present evidence on these issues sufficient to justify revocation, termination or modification of the plans by the

Board.

6. The Board finds and concludes that the Screening Risk Assessment (SRA) was performed using applicable EPA guidance and met all requirements for a health risk assessment. The SRA indicates that TOCDF can be operated as designed within the risks established by EPA for emissions as set forth in the design and construction. With respect to open burning / open detonation (OB/OD) activities, the Executive Secretary has prohibited the Army from conducting OB/OD until such time as a combined health risk assessment for both TOCDF operations and OB/OD is completed and indicates that the combined health risk is within acceptable limits.

7. The Petitioners failed to present evidence refuting the conclusions of the SRA, and the Board finds and concludes that the Executive Secretary acted appropriately in approving operations based on information in the SRA. The SRA was not a required study but was done at the discretion of the Executive Secretary and the Army because of their concern for human health and the environment, and the SRA will continue to be revised in the future as appropriate, for example, in the event of OB/OD activities simultaneous with TOCDF incineration operations. The risks of continued storage outweigh the risks from TOCDF operations, as outlined in the QRA.

8. The Board concludes that the preponderance of the evidence supports the Executive Secretary's approval of TOCDF's trial burn plans, permit and permit modifications, and denies Petitioners' First and Second Requests for Agency Action.

9. In further support of its decision, the Board hereby incorporates into these Conclusions of Law and Reasons for Decision all of the Findings of Fact set forth above, and also incorporates by reference the transcript of the Board members' comments and deliberations

on this matter on April 17, 1997 (Transcript of Hearing, Volume No. 4).

ORDER

Based upon the foregoing Findings of Fact and Conclusions of Law, IT IS HEREBY ORDERED that the relief requested in Petitioners' First and Second Requests for Agency Action is hereby denied, and that the TOCDF permits and permit modifications approved by the Executive Secretary are upheld and shall remain in effect unless amended, revoked or otherwise affected by the Executive Secretary or by further order of the Board.

DATED this 22nd day of July, 1997.

UTAH SOLID AND HAZARDOUS WASTE
CONTROL BOARD

Richard B White

By: Richard B. White, Board Chairman

NOTICE

Under Utah Code Ann. section 63-46b-13, any party may request that this Order be reconsidered by the Board. Any such request must be in writing, must be filed with the Board (with a copy to each party) within twenty days after the date shown on the attached mailing certificate, and must state specific grounds upon which relief is requested.

Judicial review of this Order may be sought in the Utah Court of Appeals under

applicable statutes and court rules, including Utah Code Ann. sections 63-46b-14 and -16 and 78-2a-3 and Rule 14, Utah Rules of Appellate Procedure, by the filing of a proper petition within thirty days of the date shown on the attached mailing certificate for this Order (or, if applicable, within thirty days after a request for reconsideration is denied).

CERTIFICATE OF SERVICE

I hereby certify that on the 22 day of July, 1997 a true and correct copy of the foregoing ORDER was mailed first-class, postage prepaid to:

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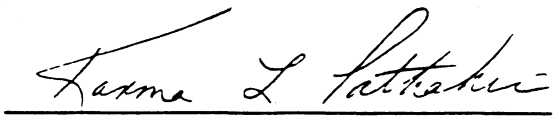

Addendum B

IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF UTAH

CENTRAL DIVISION

CHEMICAL WEAPONS WORKING GROUP, INC., SIERRA CLUB, and VIETNAM VETERANS OF AMERICA FOUNDATION.	:	
Plaintiffs.	:	ORDER
vs.	:	
UNITED STATES DEPARTMENT OF THE ARMY, UNITED STATES DEPARTMENT OF DEFENSE, and EG&G DEFENSE MATERIALS, INC.,	:	Civil No. 2:96-CV-0425C
Defendants.	:	

This matter is before the court on defendant EG&G's motion to dismiss Count 10. Because the defendant has submitted matters in support of its motion that are outside the pleadings, the court shall treat this motion as one for summary judgment. F.R.C.P. 12(c). Having determined that oral argument would not materially assist in the resolution of this matter, DUCivR7-1(f), the court now enters the following order based upon the submissions of the parties and applicable legal authority:

ADDENDUM B

Background

On or about June 18, 1996, the Utah Division of Solid & Hazardous Waste (the "Division") added EG&G as a co-permittee to the Department of the Army's license to operate the Tooele Chemical Demilitarization Facility ("TOCDF").

On July 18, 1996, the plaintiffs in this action petitioned the Utah Solid and Hazardous Waste Control Board (the "Board") to reverse the Division's action. Plaintiffs alleged, among other things, that EG&G had violated 42 U.S.C. § 6925 and Utah Code Ann. § 19-6-108(3)(a) by operating TOCDF from 1989 to 1996 without the necessary permits. In light of this long history of alleged noncompliance, plaintiffs argued that it was arbitrary and capricious for the Division to approve EG&G as a co-permittee in 1996.

Between March 18 and April 17 of this year, the Board heard approximately 22 hours of testimony and argument on this matter. At these hearings, plaintiffs had an opportunity to examine personnel from the Division who were responsible for the decision to add EG&G as a co-permittee on the Army's license.

Following the hearing, plaintiffs submitted proposed findings of fact and conclusions of law. These proposed findings supported plaintiffs' contention that the Division had acted capriciously when it "add[ed] EG&G to the TOCDF permit as an operator late in the game, after EG&G had operated TOCDF without a permit for a substantial period of time." Plaintiffs also requested that "the Board . . . suspend approvals for agent operations until the Army can make changes in . . . [its] operator . . . ." (Petitioners' Post-Hearing Brief and Proposed Findings of Fact and Conclusions of Law at 1-2.)

On July 22, 1997, the Board issued its findings of fact and conclusions of law. The first finding of fact by the Board reads in relevant part as follows:

> 1. When the Executive Secretary . . . approved a hazardous waste facility operation plan . . . for the [TOCDF] in 1989, he issued the permit to the Tooele Army Depot as owner and operator. Since the army had ultimate responsibility for ownership and operation of the facility, the Executive Secretary properly determined that EG&G need not be included in the permit as a co-permittee.

The first conclusion of law reads in relevant part as follows:

> 1. In approving the permit in 1989, the Executive Secretary acted in accordance with applicable rules and statutes, and acted in a manner that was appropriate and timely. The Board recognizes that it is not unusual for a hazardous waste facility to have subcontractors or contractors participating in operating the facility. The existence of such contractors does not necessarily mean they are "operators" of the facility within the meaning of the Utah Solid and Hazardous Waste Act and rules issued thereunder. As the Army had ultimate responsibility for ownership and operation of the facility, the Executive Secretary properly determined that EG&G, a contractor for the Army, need not be included in the permit as co-permittee.

(Board Order at 2, 9). Based upon these findings of fact and conclusions of law, the Board determined that the Division's decision to add EG&G as a co-permittee on the Army's license in 1996 was neither arbitrary or capricious.

Discussion

The defendant, EG&G, seeks summary judgment on the ground that the legal and factual issues raised by the plaintiffs in Count 10 have already been decided by State of Utah Solid and Hazardous Waste Control Board ("Board"). According to EG&G, under the principles of collateral estoppel, the Board's decision bars litigation of Count 10 in this court. This court must give preclusive effect to the Board's decision if it would be accorded such effect by the courts of

Utah, the state of its origin. Saavedra v. City of Albequerque, 73 F.3d 1525, 1534-35 (10th Cir. 1996).

The Utah Supreme Court has held that the following elements must be satisfied before a party may be collaterally estopped from relitigating issues already decided in another forum:

> (1) The issue decided in the prior adjudication must be identical to the one presented in the action in question; (2) there must be a final judgment on the merits, (3) the party against whom the plea is asserted must be a party in privity with a party to the prior adjudication; and (4) the issue in the first action must be completely, fully, and fairly litigated.

Career Serv. Review Bd. v. Department of Corrections, 322 Utah Adv. Rep. 8, 10 (Sup.Ct., July 22, 1997) (citing Searle Bros v. Searle, 588 P.2d 689, 691 (Utah 1978)). If those elements are satisfied, however, the Utah courts will give preclusive effect to court judgments and agency decisions alike. Id.

I. Identity of Issues.

On July 18, 1996, plaintiffs petitioned the Board to revoke EG&G's permit to operate TOCDF. As grounds therefore, plaintiffs stated that EG&G had violated the requirement of Utah Code Ann. § 19-6-108(3)(a) by operating TOCDF without the necessary Division permit from 1989 to 1996.

Count 10 of the plaintiffs' Second Amended Complaint in the present case simply renews plaintiffs' claim before the Board. Count 10 alleges that EG&G violated Utah Code Ann. § 19-6-108(3)(a) by operating TOCDF from 1989 to 1996 without a permit from the Division. (Second Amended Complaint at 53-54.)

Despite the obvious similarity of the claims presented to the Board and to this court,

plaintiffs insist that the issues are merely "related," but not identical. First, plaintiffs assert that the question before the Board was whether the Division acted capriciously in adding EG&G to the license as a co-permittee in 1996. Plaintiffs ignore, however, that the Division's decision to add EG&G as a co-permittee would have been capricious only if EG&G had operated TOCDF without the required permit from 1989 to 1996. In resolving plaintiffs' capriciousness claims, therefore, the Board necessarily determined that EG&G was not required to obtain a permit during the 1989-96 period.

Second, plaintiffs argue that even if the Board considered the same state claims that are advanced here, Count 10 also seeks redress for alleged violations of the federal statute, a matter over which the state Board had no jurisdiction. 42 U.S.C. § 6925. With respect to these federal law violations, plaintiffs argue that they cannot be collaterally estopped by the state proceedings.

Plaintiffs are correct that exclusive jurisdiction over suits alleging violations of the federal Resource Conservation and Recovery Act is lodged in the federal district courts. 42 U.S.C. § 6972(a). It is equally true, however, that once the Environmental Protection Agency authorized the State of Utah to administer and enforce a hazardous waste program in lieu of the federal program, 49 Fed.Reg. 39693 (Oct. 10, 1984), the federal statute was no longer applicable. See, e.g., Murray v. Bath Iron Works Corp., 867 F.Supp. 33, 42 (D.Me. 1994) ("a direct action under section 6972(a)(1)(A) is unavailable where the applicable federal requirements of RCRA have been superseded by an EPA-authorized state hazardous waste program pursuant to 42 U.S.C. § 6926(b)"); Dague v. City of Burlington, 732 F.Supp. 458, 465 (D.Vt. 1989) ("a plaintiff seeking to challenge the operation of a hazardous waste site in an EPA authorized state may bring an

action under state law, not federal law . . ."). Thus, the Board considered the only claims which plaintiffs may actually advance, i.e., those based on state law.

The court therefore finds that the issues presented by Count 10 are identical to those presented to the Board.

II. Final Judgment on the Merits.

Plaintiffs argue that so long as the Board's decision may be reversed by the Utah Court of Appeals, the decision is not final for purposes of collateral estoppel. The Tenth Circuit has held to the contrary: "Utah law provides that, unless it is reversed on appeal, a judgment is final for issue preclusion purposes." Ativa v. Salt Lake County, 988 F.2d 1013, 1020 (10th Cir. 1993). The Tenth Circuit's determination is binding on this court. Therefore, despite the pendency of plaintiffs' appeal, the Board's decision is final for purposes of this motion.

III. Identity of Party Against Whom Plea is Asserted.

Defendant asserts that the plaintiffs in this action were also the plaintiffs in the administrative hearing before the board. Plaintiffs do not dispute this fact.

IV. Opportunity for Full and Fair Litigation.

Utah case law does "not require either a motion or a hearing for full and fair litigation but says only that 'the parties must receive notice under all the circumstances, to apprise them of the pendency of the action and afford them an opportunity to present their objections.'" Career Serv. Review Bd. 322 Utah Adv. Rep. at 10 (quoting Copper State Thrift & Loan v. Bruno, 735 P.2d 387, 391 (Utah.App. 1987). See also, Kremer v. Chemical Const. Corp., 456 U.S. 461, 481 (1982) ("state proceedings need do no more than satisfy the minimum procedural requirements of

the Fourteenth Amendment's Due Process Clause in order to qualify for the full-faith-and-credit guaranteed by federal law").

Plaintiffs received all the opportunity for full and fair litigation that Utah law or the federal constitution require. In addition to filing various pleadings, plaintiffs were allowed over twelve hours of time to present witnesses. Plaintiffs also conducted cross-examination or voir dire of several witnesses called by EG&G. Although even more time and process might have been desirable from plaintiffs' perspective, the process actually accorded them was sufficient for purposes of the collateral estoppel analysis.

Plaintiffs also argue that they lacked the incentive to litigate fully in front of the Board because the Board could not impose fines or penalties under the federal statute. This contention is without merit. First, as explained above, no court has the power to impose penalties on EG&G under the federal statute: it has been superseded by the state regulatory scheme. Second, had plaintiffs prevailed in front of the state agency, EG&G might well have been ordered to cease its operations at TOCDF. It is hard to conceive, in light of plaintiffs' vigorous efforts to prevent operations at TOCDF (including two preliminary injunction hearings before this court), that the potential halt of test burns at TOCDF did not provide them with adequate incentives to litigate the issue. The court therefore finds that this element of the collateral estoppel test is satisfied.

Conclusion

Each of the elements necessary for collateral estoppel under Utah law has been satisfied. Plaintiffs are estopped from relitigating the issue of EG&G's licensure in this forum when that question was already decided against them in front of the Board. The court's resolution of this

matter makes consideration of defendant's Burford abstention argument unnecessary.

Defendant's motion for summary judgment on Count 10 is hereby GRANTED.

SO ORDERED this 10 day of October, 1997.

BY THE COURT:

Tena Campbell

TENA CAMPBELL
United States District Judge